

A challenging 2021 – 2022 U.S. respiratory season ahead

An uncertain respiratory season

Low flu levels in 2020

Rebounding ILL viruses in 2021

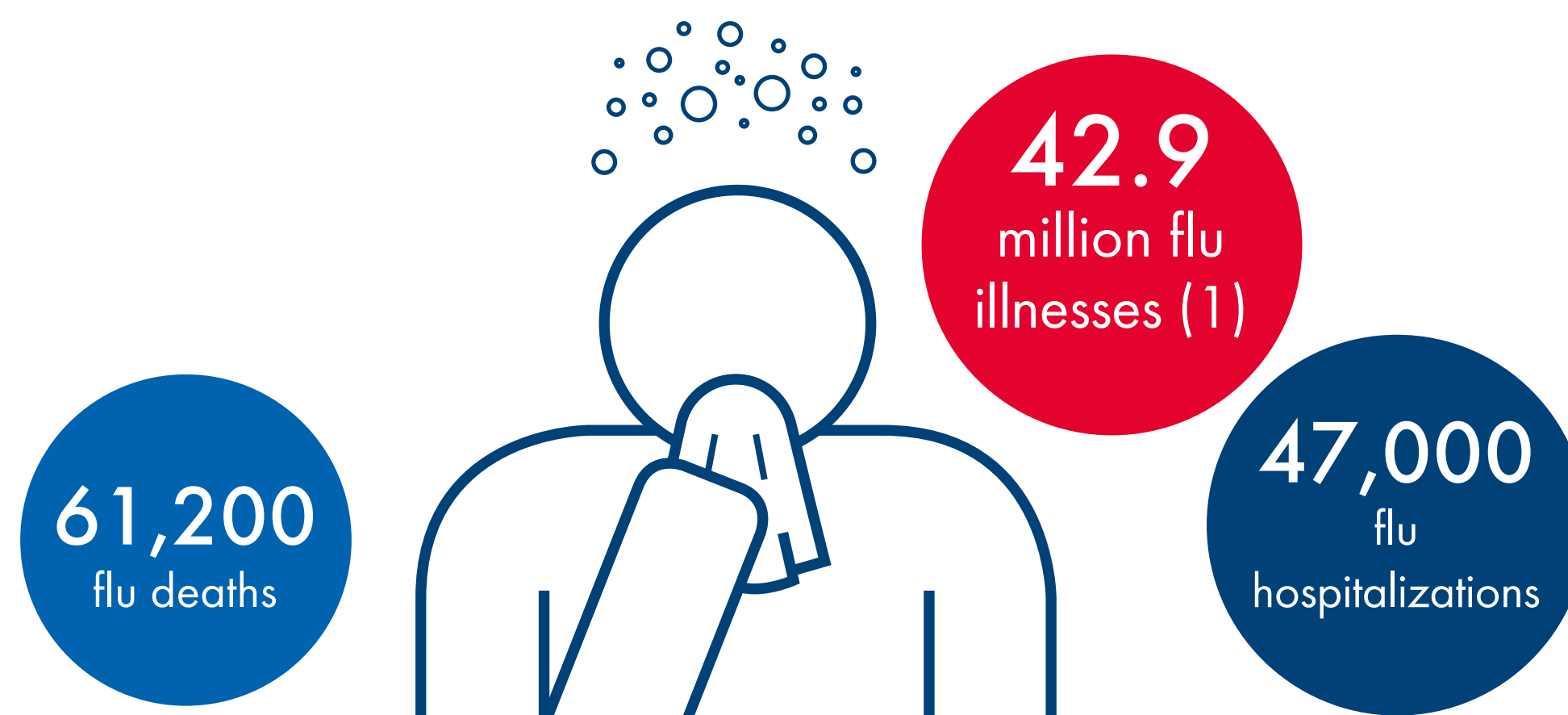
Similar symptoms, different pathogens

Distinguish pathogens with syndromic testing

References

Due to seasonality of most respiratory pathogens, the 2018 – 2019 respiratory season in the northern hemisphere was standard in many ways (1).

And it's not just about the flu. On average, fewer than 45% of influenza-like illness (ILI) cases are caused by the influenza virus (2).



Respiratory syncytial virus (RSV)

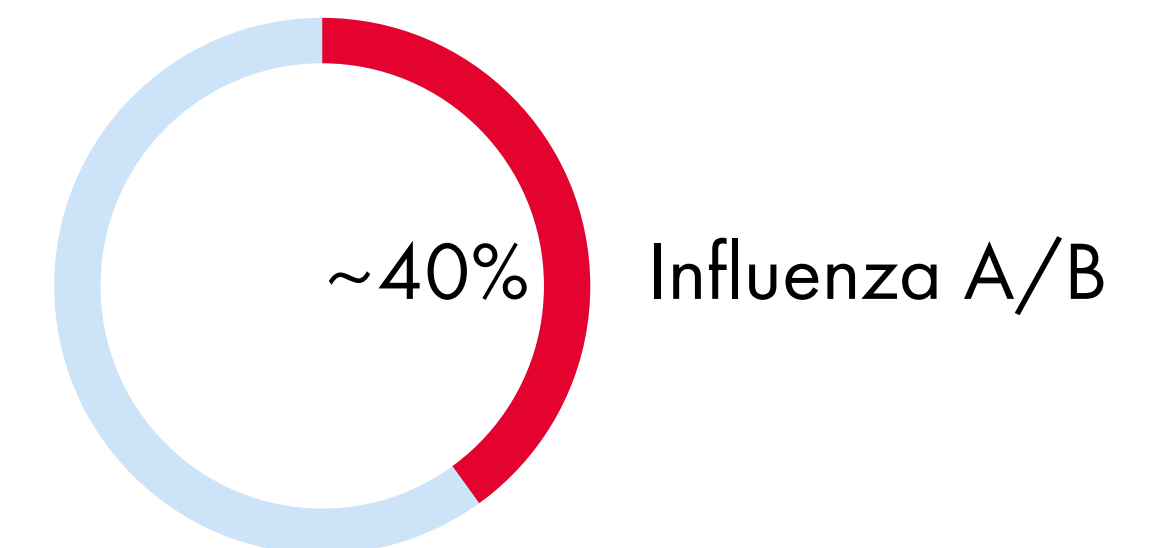
Parainfluenza virus

Enterovirus

Rhinovirus

Adenovirus

Mycoplasma pneumoniae

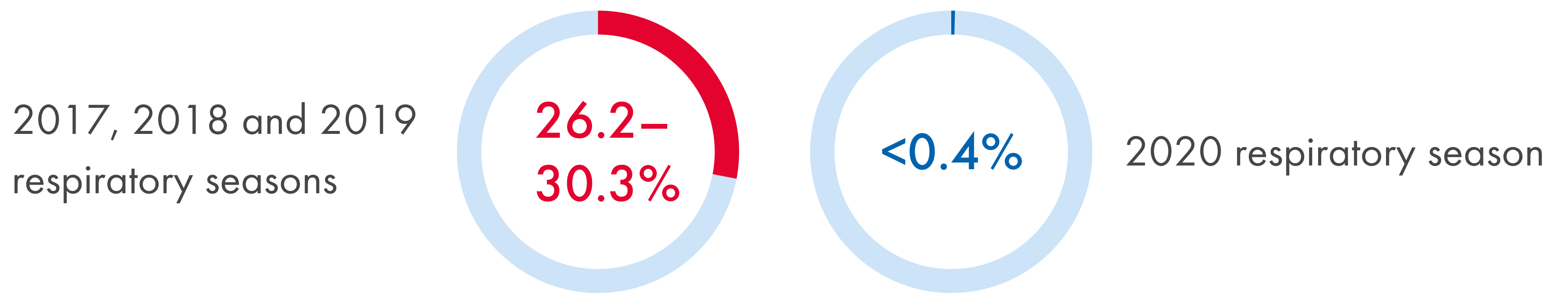


But the COVID-19 pandemic has brought new challenges not seen in typical respiratory seasons.

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Mitigation strategies, like lockdowns and mask mandates, significantly blunted the spread of respiratory pathogens in 2020 (3,4).

ILL cases testing positive for influenza



As a result, health officials have been unable to predict the severity of the 2021 season (5).

In 2021, as public health measures are eased and society reopens, cases of ILI caused by non-COVID respiratory viruses are dramatically rebounding (6,7).

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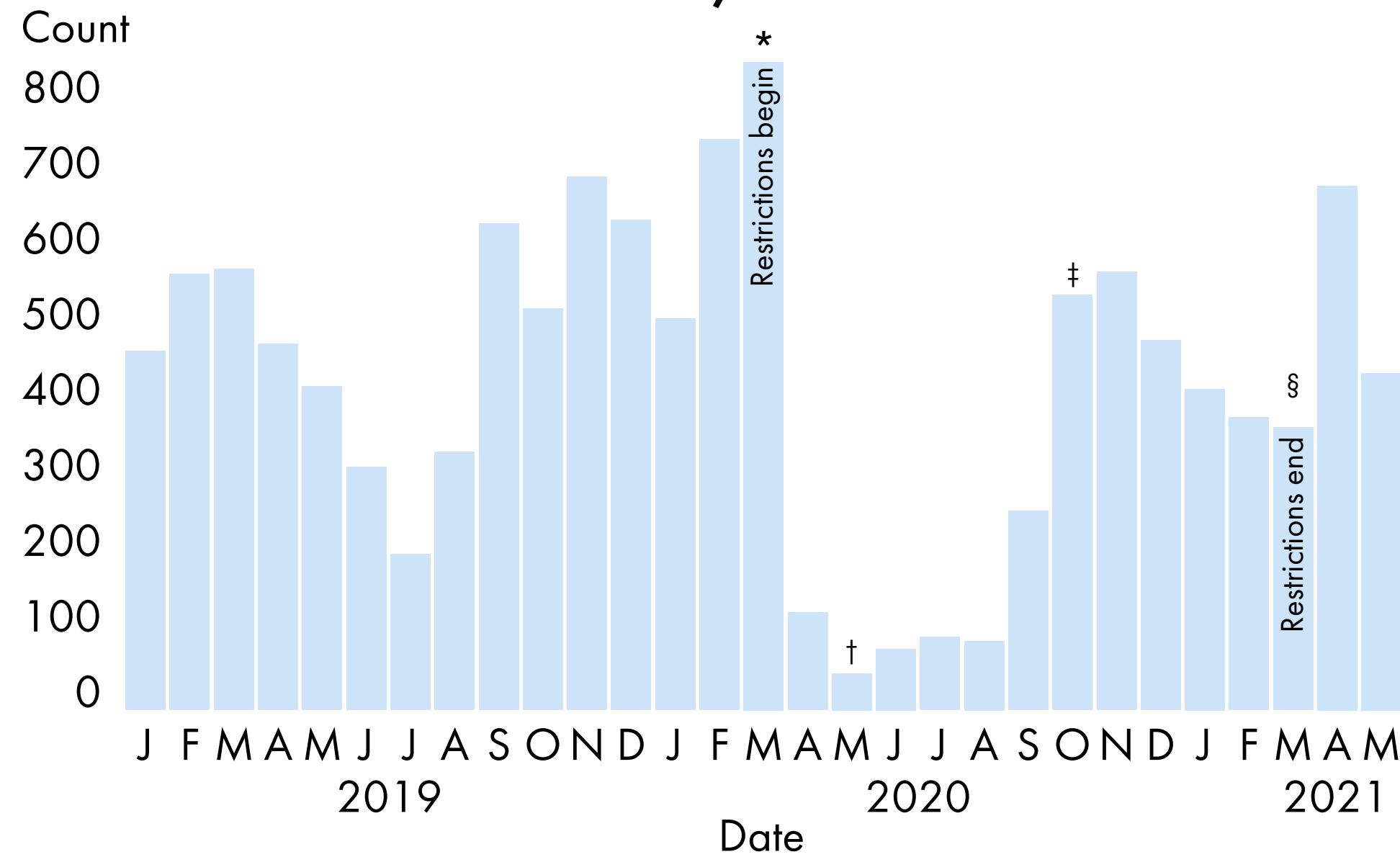
Rebounding ILI viruses in 2021

Similar symptoms, different pathogens

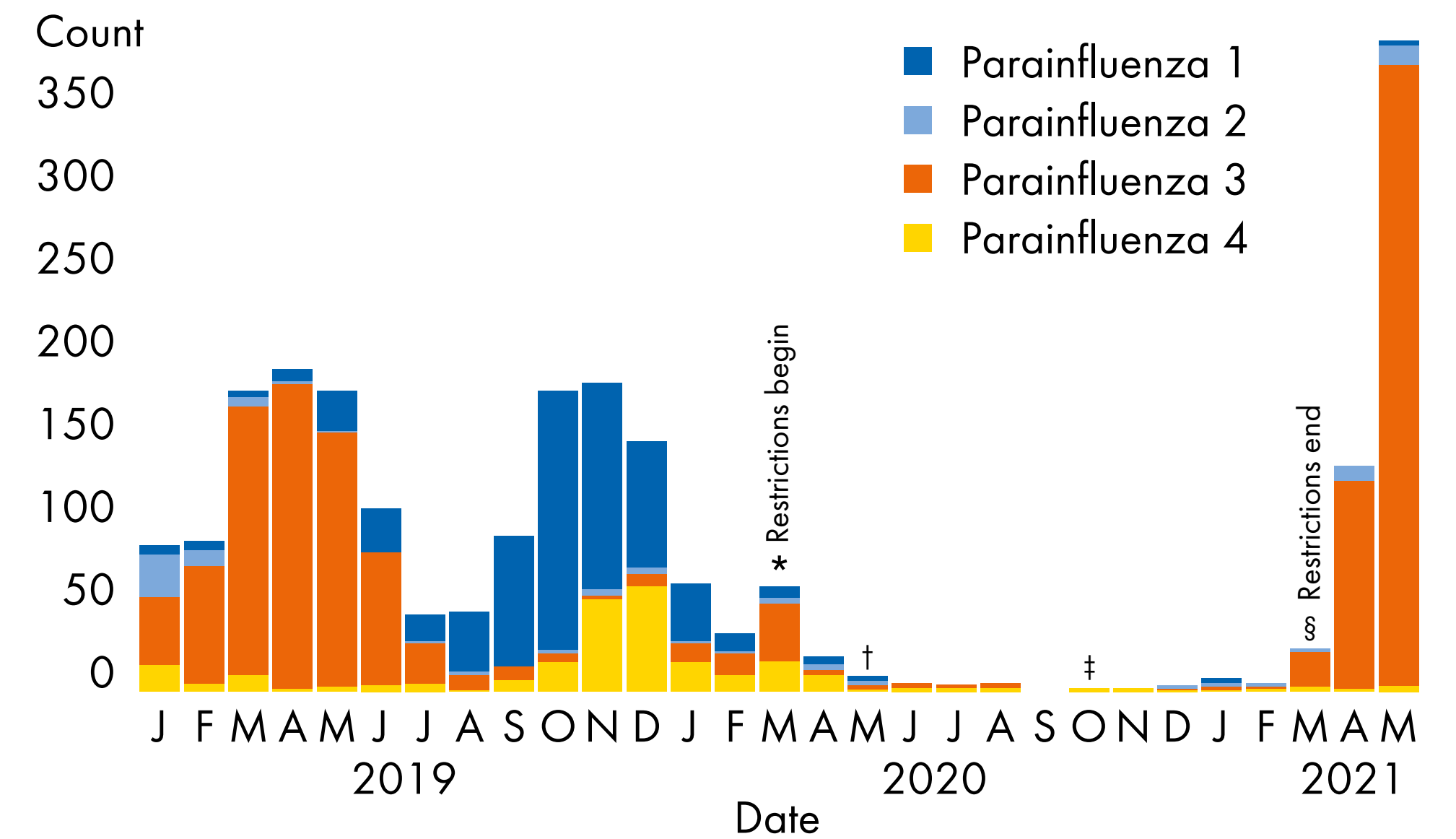
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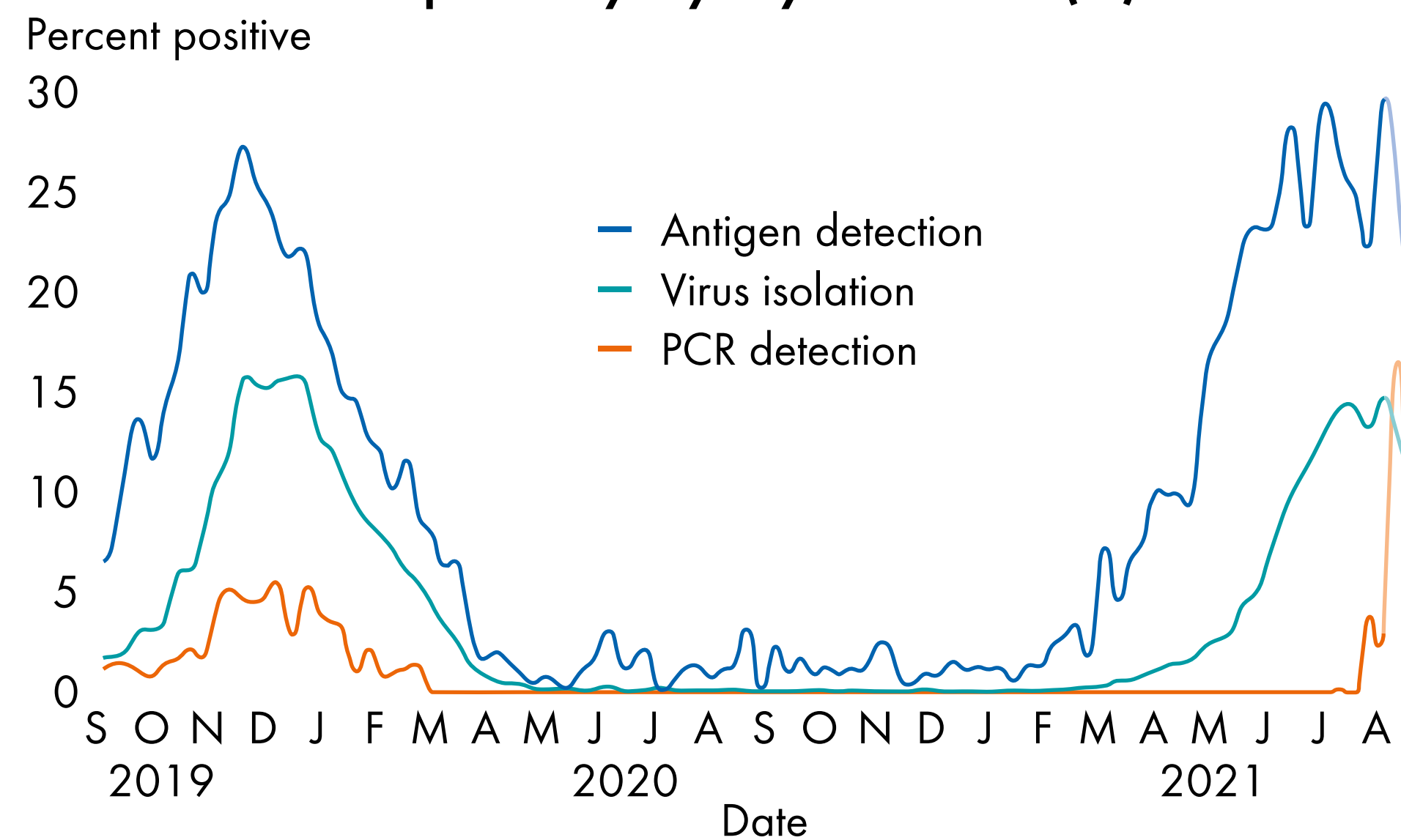
Rhinovirus/Enterovirus



Parainfluenza



Respiratory Syncytial Virus (8)



* March 2020, start of pandemic lockdown measures.

† May 2020, phase one reopening of Texas.

‡ October 2020, additional reopening measures.

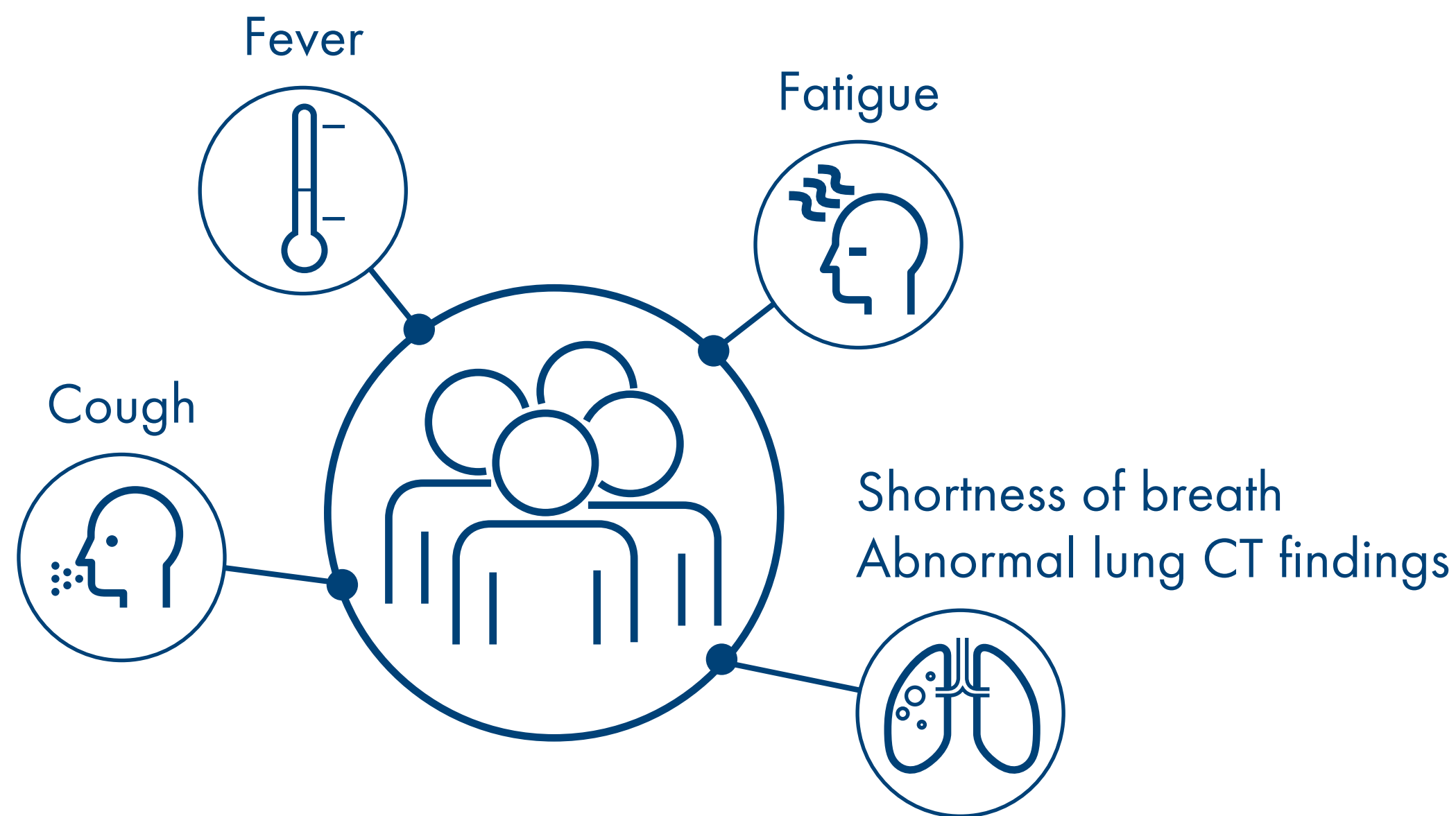
§ March 2021, removal of all restrictions.

The Centers for Disease Control and Prevention even issued a health advisory warning of increased interseasonal RSV activity in the southern US (9).

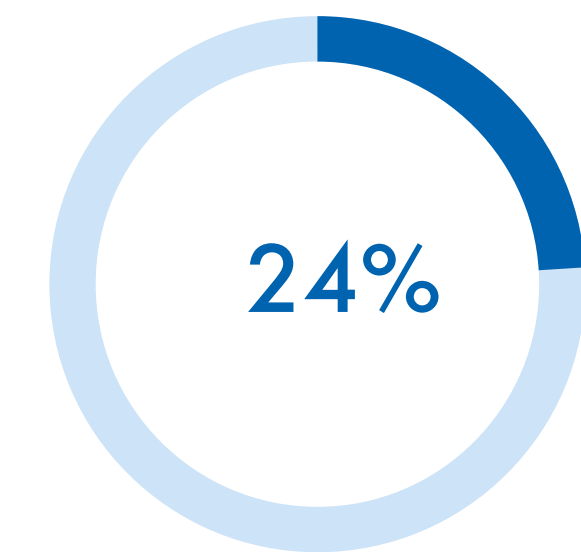
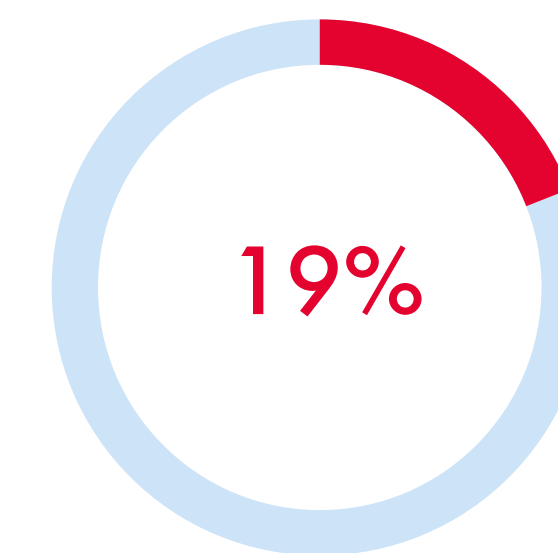
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Distinguishing between COVID-19 and ILLs based on symptoms alone is challenging due to the similarity in clinical characteristics (10).

And co-infections are common, resulting in increased disease severity and poorer patient outcomes (11).



19% of patients with COVID-19 have co-infections



24% have superinfections

To best support patients during the exceptionally challenging respiratory season ahead, quickly differentiating between a multitude of causative pathogens will be crucial.

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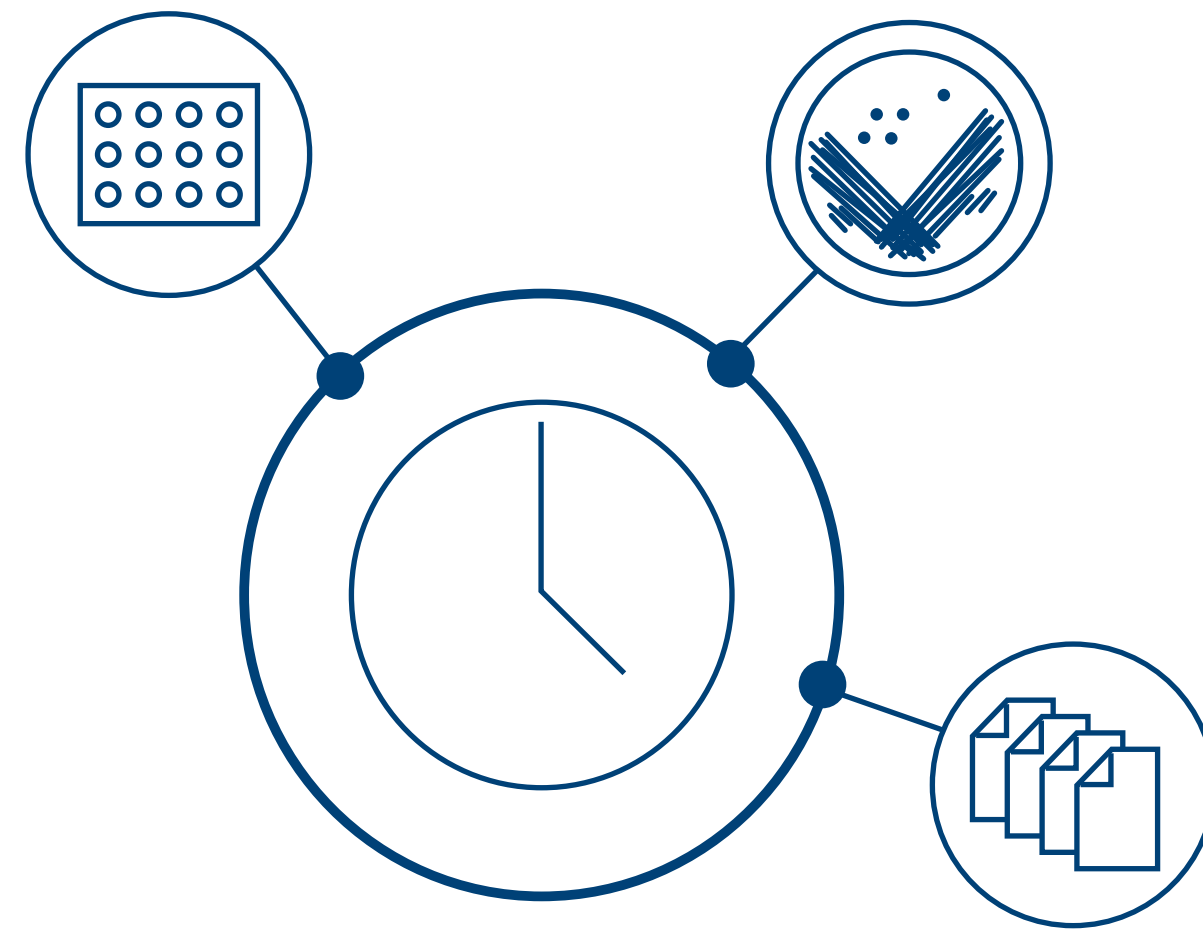
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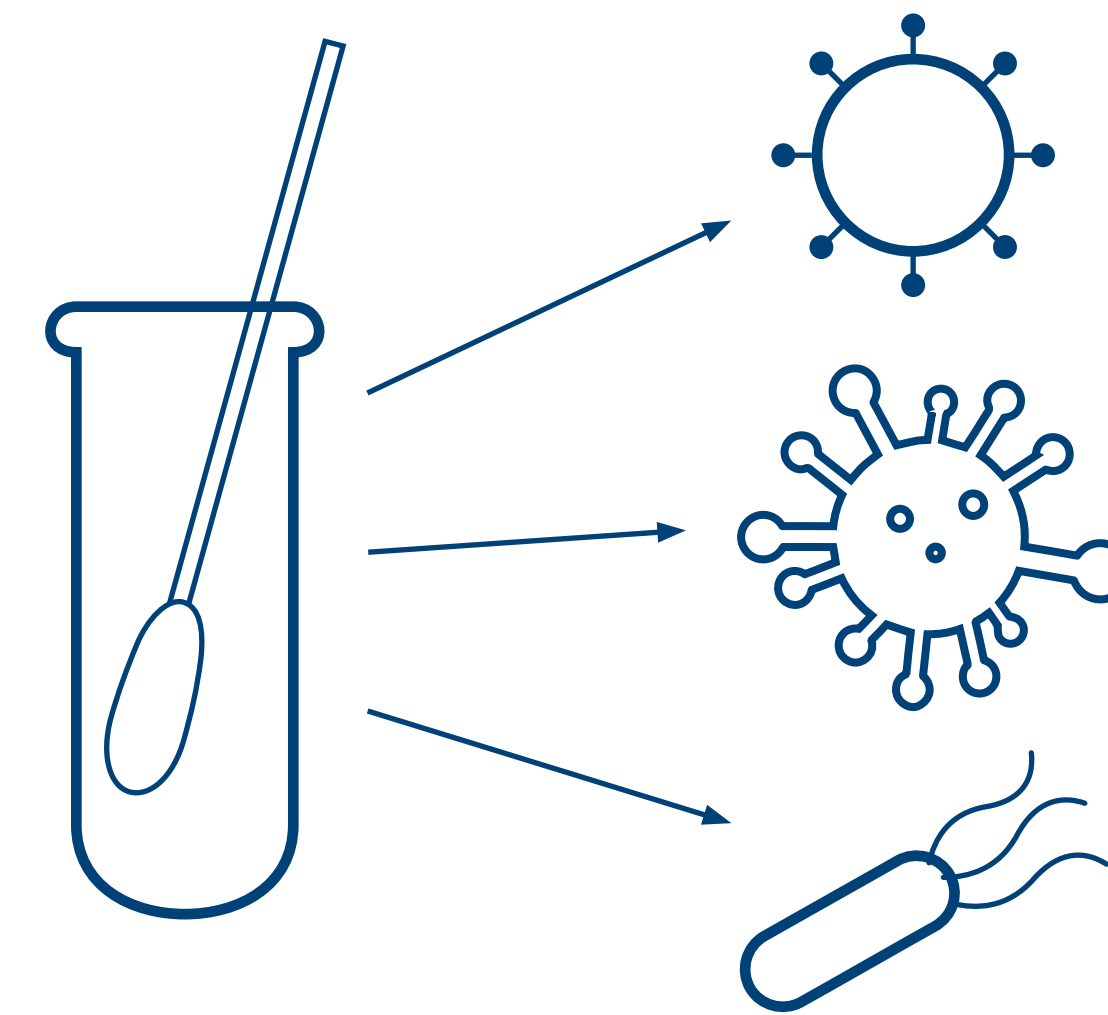
Traditional centralized laboratory methods can take days and often test for only one pathogen at a time.



The CDC has recommended the use of multiplex testing while COVID-19 and the flu are co-circulating (12).

Multiplex syndromic testing can identify dozens of pathogens in one sample in around one hour.

Syndromic testing can help reduce guesswork and facilitate fast clinical decision making.



The respiratory season is on the horizon.
We're ready to help you prepare.

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References

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